

discovered. He presented for the examination of the members in support of this fact, one of the recently published maps of his district.

Pending nominations, Nos. 830 to 836 and new nominations Nos. 837 and 838 were read.

Pending nominations, Nos. 830 to 835 were spoken to and balloted for.

The Resolutions of Prof. Frazer to recommend the addition of metric units to English units in papers prepared by members for publication; and Dr. Roger's amendment to order the conversion of metric units when used into English units, postponed from March 16, 1876, were called up, debated at much length, and not agreed to.

The ballot boxes being scrutinized by the presiding officer, the following persons were declared duly elected members of this Society.

830. Prof. Henry Draper, M. D., of New York City.

831. Dr. J. T. Rothrock, Prof. Botany, University, Pa.

832. Mr. James Douglass of Phoenixville, Pa.

833. Prof. J. J. Stevenson, University of New York, and Assistant Geologist Second Geological Survey of Pennsylvania.

834. Dr. George R. Moorhouse, of Philadelphia.

835. Dr. T. B. Reed, of Philadelphia.

And the Society was adjourned.

Stated Meeting, May 4th, 1877.

Present 16 members.

Vice-President, Mr. PRICE, in the Chair.

Mr. H. Armitt Brown, a newly elected member was introduced to the presiding officer and took his seat.

Letters accepting membership were received from Prof. J. J. Stevenson, 314 West Thirtieth Street, New York, April

24, 1877; Dr. Thos. B. Reed, dated Philadelphia, April 24, 1877; Prof. Henry Draper, 271 Madison Avenue, New York, April 24; Dr. Geo. R. Moorhouse, 227 South Ninth Street, Philadelphia, April 25, 1877.

Letters of acknowledgment were received from the Imperial Russian Society (95,97); Imperial Central Meteorological Establishment (97); and the Astronomical Society at Leipzig (97).

A letter of envoy was received from the Meteorological Office in London.

Donations for the Library were received from the Berlin Horticultural Union and African Exploration Society; the Vienna Anthropological Society and Geological Establishment; the Brussels Academy, and Netherland Botanical Society; Annales des Mines; London Astronomical, Asiatic, Antiquarian and Zoological Societies; Meteorological Office, and Editors of Nature; Greenwich and Radcliff Observatories; and the Observatory at the Cape of Good Hope: Mr. James Young and Mr. R. Angus Smith of Edinburgh; the Essex Institute; Silliman's Journal; Franklin Institute; College of Pharmacy; Prof. Cope and Mr. J. Meehan; the University of Virginia; Wisconsin Academy of Sciences; and M. Bareena of Mexico.

The death of General Wm. A. Stokes, at Philadelphia, May 3, in the 63d year of his age, was announced by Mr. Price.

Prof. Cope exhibited and described a plaster cast of the Cranial Cavity of a fossil *Procamelus Occidentalis*, from near Sante Fé, New Mexico, comparing it with the brain of the llama.*

Prof. Cope communicated a catalogue of 43 species, (about 20 of them new) of living batrachia; entitled "Synopsis of the cold-blooded vertebrata procured by Prof. James Orton during his explorations of Peru in 1876-77." Prof. Orton has added greatly to the value of his catalogue by

* This and following communications will be published in the next volume (XVII) and No. (100) of the Proceedings.

giving the elevation above tide at which each species was noticed. Thus, a *Bufo* was seen ranging from the seaboard to a height of 14,500', without material noticeable change of aspect.

Prof. Sadtler communicated a paper "On some new chlorine derivations from Toluole, by Dr. E. F. Smith of the University of Pennsylvania.

Mr. Lesley communicated and read a part of a Report by Mr. J. F. Carll, Assistant Geologist on the Second Survey of Pennsylvania in charge of the Oil District; describing the success and method of his efforts to regulate and harmonize the Railroad and Oil Well Levels above tide in North-western Pennsylvania.

Pending nominations 836, 837, 838, were read.

Dr. Rogers announced that the Committee on the Wooten Slack-Burner would be ready to report at the next meeting of the Society.

Mr. Fraley reported that he had paid into the Treasury \$143.07, being interest due on the Michaux Legacy, April 1, 1877.

Mr. Price, Chairman of the Committee on the Michaux Legacy reported the action of the Committee at its meeting April, 25, 1877, as follows:

Report.

"At a meeting of the Committee on the Michaux Legacy, held April 25, 1877, present, F. Fraley, Aubrey H. Smith, Wm. M. Tilghman, Jos. B. Townsend, and Eli K. Price.

"On motion it was resolved to recommend an appropriation of two hundred dollars for the expenses of a course of Lectures contributing to the extension and progress of Silviculture, to be delivered by Dr. T. F. Rothrock, of the University of Pennsylvania.

"*Resolved*, That the Chairman of this Committee be requested to confer with Dr. Rothrock, with the view to the preparation of a syllabus of such a course, and the time and plan for the delivery thereof, in case the above resolutions should meet the approbation of the Society.

"Dr. Rothrock afterwards met the Chairman and Mr. Fraley, and consents to lecture once a week in the Park, and to fill out the syllabus herewith reported."

[Signed.]

ELI K. PRICE, CHAIRMAN.

The following resolution offered by Mr. Price with a blank for the sum to be appropriated, was debated at length, the blank filled, and passed unanimously :

Resolved, That an appropriation of four hundred and fifty dollars (\$450) be made out of the income of the Michaux Legacy, to defray the expenses of a course of lectures in Horticultural Hall, Fairmount Park, on Silvy-culture, to be delivered by Dr. Rothrock.

And the meeting was then adjourned.

Syllabus of Lectures on Silvyculture.

TO MR. ELI K. PRICE,

Chairman of the Committee on the Michaux Fund of the American Philosophical Society, and of the Committee on Trees and Nurseries of the Fairmount Park Commissioners.

DEAR SIR :—I have the honor to submit the following as an outline of the proposed Lectures in the Park :

1. Sketch of André Francois Michaux. Outline of the journeys made by him and by his father in North America. The primary object being the introduction into France of American plants and especially American trees. This was an early recognition there of the actual necessity of Arboriculture in its relation to the future. Provision made by William Penn, July 11, 1681, that "in clearing the ground care be taken to leave one acre of trees for every five acres cleared, especially to preserve Oak and Mulberry Trees for silk and shipping." Tree destroying tendency of the American people has been matured into an instinct.

2. Recognized need in Europe of replacing forests destroyed and of protecting those that remain has developed a matured system of Forestry. Give an outline of this system.

3. Immediate necessity for some such system in the United States, growing out of ruthless destruction of our extreme forests. Immediate action required to prevent serious injury to the future interests of commerce and of the arts in our country by a continuance of this unrestrained destruction, without any corresponding measures being taken to replace the first growth.

4. Influence of extensive forests (and vegetation generally) on face of country : 1st, from an æsthetic point as illustrated by Humboldt's Views of Nature ; 2d, by either increasing or conserving rain fall ; 3d, by preventing rapid evaporation on one hand and destructive freshets on the other ; 4th, by moderating climate, *i. e.*, warding off destructive winds,